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ABSTRACT

Differences in reading achievement of bilingual and monolingual groups of fifth, sixth, and seventh graders were investigated in several Texas schools where the Czech-American culture was significant. Sixty-three bilingual students were compared with monolingual students who had Czech surnames or Czech-American backgrounds, on the basis of chronological age, grade level, socioeconomic status, sex, intelligence, and reading achievement. Examined were differences among vocabulary, reading comprehension, total reading scores, sex as a factor in total reading scores at the three grade levels, and the correlation between total reading achievement and socioeconomic status. Results indicated that, although no appreciable difference existed between the monolinguals and bilinguals, a difference did exist between the sexes, in vocabulary, comprehension, and total reading. Socioeconomic status was found to be significantly correlated with reading ability. (HOD)

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A COMPARISON OF READING VOCABULARY AND READING COMPREHENSION SKILLS BETWEEN BILINGUAL AND MONOLINGUAL CZECH-AMERICAN STUDENTS

Robert J. Hollick, Ph.D.

The Study

The study was designed to investigate whether reading achievement differed between bilingual and monolingual groups of the fifth, sixth, and seventh grades in several Texas schools where the Czech-American culture is significant. For this purpose, 63 bilingual students in grades five, six, and seven were identified in several central Texas communities in the fall of 1973 and compared with monolinguals having Czech surnames or Czech-American backgrounds on the basis of chronological age, grade level, socio-economic status, sex, intelligence, and reading achievement.

Need For the Study

A thorough review of the literature revealed that bilingual studies rarely addressed themselves to the Slavonic immigrant in America. This was especially noted with the Czech-Americans. Research which dealt with possible effects of this group bilingual ability on cognitive learning in American schools was conspicuously missing.

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By utilizing the findings of a previous researcher, who had systematically estimated the number of Czech speakers in each state, it was ascertained that Texas was 2nd in the nation in the number of Czech speakers. As a result of this, the study to analyze the impact of Czech-American bilingualism on the academic area of reading was initiated.

Determining Czech-American Bilingualism

A bilingual scale, which measures the degree of usage of a foreign language at home and also a method commonly utilized in bilingual studies, was not used in the research. Instead, students of Czech background were asked questions selected from a well known individual intelligence test but translated into the appropriate local Czech dialect. A logical answer to the question, either in Czech or English, inferred a knowledge of the language to a degree of understanding entire conversations. Followup interaction supported this premise. Briefly, the bilingual group consisted of those students who answered questions given to them in Czech. The monolingual group was composed of the students who were unable to respond to these questions. The latter group was also of Czech background.

Main Steps of the Study

After the communities were selected, every fifth, sixth,

and seventh grade student of Czech-American background was interviewed to determine bilingualism and monolingualism and also to collect demographic data. On the basis of bilingualism, two groups were formed and were administered the Cooperative Inter-American Test of Reading, Intermediate Level - A E. The reading variables of vocabulary, comprehension, and total reading scores along with several demographic variables were used to compare the groups with appropriate statistical procedures.

Research Questions

In order to determine the differences between the monolingual and bilingual groups at the fifth, sixth, and seventh grade levels, the design calls for testing the following research questions:

1. Is there a significant difference in vocabulary scores between the bilinguals and monolinguals?

2. Is there a significant difference in reading comprehension scores between the bilinguals and monolinguals?

3. Is there a significant difference in total reading scores between the bilinguals and monolinguals?

4. Is sex a significant factor in total reading scores between bilingual and monolingual groups at the three grade levels in this study?

5. Is there a significant correlation between total reading achievement and socio-economic status?

Results

As indicated by Table 1 no appreciable difference between bilinguals and monolinguals seemed to exist. Further inspection did reveal a difference between the males and females in the variables of vocabulary, comprehension, and total reading. An analysis of variance was carried out and a significant difference was found in the above areas and approached significance in the area of intelligence (Table 2). Therefore, supplementary analyses were carried out separately for male and female. As depicted by Tables 3 and 4, no significant difference was found between bilinguals and monolinguals with neither the females nor the males in any variable.

Socio-economic status was found to be significantly correlated with reading ability. Even by holding intelligence constant, this finding remained significant (Table 5).

Table 1

Means and Standard Deviations of Male and Female Students on Demographic and Reading Variables

Variable	Male				Female			
	Bilingual		Monolingual		Bilingual		Monolingual	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Sample Size								
Age	11.8	1.13	11.7	1.06	11.9	.83	11.8	.93
Grade	6.0	.84	5.96	.79	6.1	.78	6.2	.79
Reading Vocabulary	55.82	9.95	53.85	10.99	57.60	6.30	57.91	7.58
Reading Comprehension	45.87	9.06	45.86	8.26	48.04	5.63	48.42	6.43
Reading Total	101.68	18.35	99.71	18.38	105.64	11.52	106.31	13.30
Socio-economic-status	41.26	8.58	38.07	12.69	37.30	12.01	39.91	10.02
Intelligence	100.89	12.30	100.48	14.03	102.56	12.61	103.47	12.23

Table 2

Analysis of Variance on the Demographic and Reading Variables of Male and Female Students

Variable	Mean Female	Mean Male	F	P
Age	11.83	11.74	0.611	0.558
Grade	6.18	6.97	4.805	0.027
Reading Vocabulary	57.85	54.34	9.998	0.002
Reading Comprehension	48.34	45.86	7.730	0.005
Reading Total	106.18	100.20	9.792	0.002
Socio-economic-status	39.40	38.88	0.157	0.694
IQ Intelligence	103.29	100.58	3.051	0.077

Wilks LAMBDA 0.722

D. F. = 7. and 274.

F-Ratio = 15.045 P = 0.00

Root 1 38.44 Pct. Variance

Table 3

Analysis of Variance on the Demographic and Reading Variables of Bilingual and Monolingual Female Students

Variable	Mean for Females Bilingual	Monolingual	F	P
Age	11.88	11.82	0.084	0.769
Grade	6.12	6.19	0.186	0.670
Reading Vocabulary	57.60	57.91	0.043	0.829
Reading Comprehension	48.04	48.42	0.079	0.776
Reading Total	105.64	106.31	0.059	0.803
Socio-economic-status	37.28	39.90	1.292	0.256
Intelligence	102.56	103.46	0.105	0.744

Table 4

Analysis of Variance on the Demographic and Reading Variables of Bilingual and Monolingual Male Students

Variable	Mean for Males Bilingual	Monolingual	F	P
Age	11.76	11.73	0.023	0.872
Grade	5.00	5.96	0.060	0.801
Reading Vocabulary	55.81	53.84	0.955	0.668
Reading Comprehension	45.86	45.86	0.002	0.958
Reading Total	101.68	99.70	0.329	0.573
Socio-economic-status	41.26	38.07	2.077	0.147
Intelligence	100.89	100.78	0.027	0.864

Table 5

	Language	Sex	Age	Grade	Vocabulary	Comprehension	Total Reading	Socio-Economic Status	Intelligence
Language Bil-Mono	1.00								
Sex	0.076	1.00							
Age	-0.013	0.046	1.00						
Grade	0.015	0.130*	0.806	1.00					
Voc.	-0.030	0.185**	0.117	0.262**	1.00				
Comp.	0.020	0.163**	0.023	0.168*	0.822**	1.00			
Total	-0.008	0.183**	0.079	0.230**	0.963**	0.943**	1.00		
SES	-0.026	0.023	0.030	0.093	0.284**	0.288**	0.300**	1.00	
IQ	0.012	0.104	-0.118	-0.029	0.635**	0.650**	0.672**	0.332**	1.00

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Conclusions

It is concluded that Czech-American bilinguals read as well as Czech-American monolinguals. This conclusion rests upon the findings that the fifth, sixth, and seventh grade bilinguals in this study scored equally as well on a standardized reading test which included the variables of vocabulary, reading comprehension, and total reading when compared to monolinguals of the same grade levels and who came from the same ethnic and socio-economic-status background. Further, the factors for comparison of the subjects revealed a likeness between the two groups which enabled the utilization of a relatively pure analytic approach.

A second conclusion is that females read better than males irrespective of bilingualism. This is based upon the fact that both bilingual and monolingual females scored consistently higher on the two-part reading test administered in this study than the bilingual and monolingual males. The findings of the reading vocabulary scores and reading comprehension scores of the females in this study are consistent with the results of several current studies dealing with similar age subjects. Although not as prominent, this same trend was revealed in the comparing of intelligence

scores based on group tests which dictated the use of the ability to read as a condition for determining of intelligence scores. Again this is consistent with the findings of recent research which studied sex differences in intelligence test scores.

The third major conclusion may be drawn from the results of the correlation between socio-economic-status and total reading ability. The findings revealed that the sample population in this study is not unlike other populations, as evidenced by prior studies, in that a higher socio-economic-status seems to indicate more advantages which enable persons to read more skillfully than persons of a lower socio-economic-status.

Implications

It is highly possible that one of the lingering questions which confront parents of an ethnic background is concern for the negative effects of bilingualism of their children upon academic skills which are gained through only one language. This investigation showed that the bilingual students scored equally as well on a standardized reading test as the monolingual students, indicating that bilingualism cannot be considered a handicap for these students who were able to understand structured test questions presented in the Czech language. In view of the fact that these stu-

dents were compared to students of the same ethnic surnames, apprehension of possible retardation of reading skills as a result of bilingualism should be lessened.

In elementary and secondary educational settings of which these bilinguals are a part, teachers and administrators may well consider the postponement of far-reaching judgments of potential academic competencies, especially at early elementary levels. Of equal importance to school officials, these bilingual students may be capable of furthering their bilingual abilities to a greater degree of proficiency. The further expansion of this potential would not only satisfy the purposes of language preservation as supported by many members of the Czech Community, but would provide an additional avenue of academic growth for these students.

Universities in Texas are attempting to prepare teachers of the Czech language to fulfill this need, but at best have been only moderately successful. Planners could consider the possibility of improvising individualized programs in the Czech language targeted at Czech-American students rather than programs replicated from Czechoslovakia. In addition, the majority of the teaching staffs of the schools in this study included Czech-speaking teachers who may be willing to participate in intensive courses for certifica-

tion and establish courses of study in Czech for Czech-American bilingual students. Administrators would possibly be more receptive to this method as it would not dictate further financial appropriations for the program at local levels. Another consideration may be the establishment of mini-courses not usually included in the courses of study in the schools and organized in such a manner as to enable the use of resources located within the immediate community. It is highly probable that a number of citizens who are quite proficient in the Czech language would be willing to participate in such a project. It would not only bring the community into a closer relationship with the school, but, as stated previously, also would not entail too great an expenditure of funds.

At the university and college level, Czech apparently is not regarded as a language for research by the various disciplines. On the other hand, Russian, a language quite accessible to serious students who are proficient in Czech, does enjoy this status. This particular aspect and in-depth study of the occurrences of baccalaurete level research made possible by a mastery of a foreign language could be taken into account by officials of higher institutions of learning in their final consideration for the inclusion or exclusion of a foreign language course.

In the area of research, the findings of this study are based on the results of the administration of one standardized test which measures reading ability and which was deemed sufficient in this situation. Future researchers may consider the inclusion of variables such as numerical computation and creativity while other researchers could enlarge psychological dimensions of Czech-American bilingualism. Future studies could include other areas of Texas which are similar in Czech ethno-cultural characteristic and consequently lend further input into the generalizability of the findings in this study. A dire need is evident in the area of longitudinal studies which would be directed toward children at earlier ages than the subjects in this study to ascertain whether a Czech-American bilingual bridge exists at these particular ages. Longitudinal studies targeted at secondary students could include within their designs the type of occupations which are pursued by Czech-American bilinguals and give new information concerning the advantages and worthwhileness of bilingualism. An analysis of this and previous research indicates the importance of accounting for sex and socio-economic-status even when other comparing factors are similar.

Recommendations

As suggested by the conclusions and implications mentioned in this chapter, this study makes the following recommendations and addresses itself to Czech-American bilingual families, educational institutions, and future researchers:

(1) In those homes where both English and Czech are spoken, the speaking of the Czech language should be continued and encouraged. There are no indications that this activity is disadvantageous to reading ability in school.

(2) Schools, in which bilingual Czech-American students are attending, should make positive efforts to maintain this source of communication by offering opportunities to these students to cultivate this skill. These schools should employ qualified teachers in this area, utilize capable Czech-American teachers already employed on their staffs, or use available community resources in attaining this objective.

(3) These schools, mentioned above should be cognizant of the bilingual circumstances of these students and not make judgments of placement or programs based solely upon this factor.

(4) Community colleges, located in areas where the Czech-American culture is significant, should continue

their efforts to perpetuate the recent notable increase in Czech language course enrollment by expanding their programs.

(5) Universities should consider the offering of the Czech language in full awareness of the student population they serve, the enrichment qualities of the language, and its position in the Slavonic family of languages, some of which are highly critical as tools for research.

(6) Consideration should be given to the Czech-American bilingual students by state education agencies in their initiation of bilingual programs.

(7) Research concerning the Czech-American student should be expanded to include more fundamental variables associated with reading and further generalize findings with national norms.

(8) Longitudinal studies of reading, arithmetic computation, and creativity should be conducted with younger children than those included in this study. Longitudinal studies should also be made to determine eventual occupations of Czech-American bilinguals and determine the role of bilingualism in their professions.

(9) This study should be duplicated in other areas of Texas to give additional data as to the generalizability of this research.

(10) The language should be maintained by the Czech-American community and not be relegated to the increasing number of disappearing resources in the United States.